29-32. (Cancelled)

33. (Withdrawn) The assembly line of claim 25 wherein said stanchion base is located along said x and y axis using a template.

34 -36. (Cancelled)

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Amended) A reconfigurable pallet that supports a structure, comprising:

a pallet base; and

a plurality of modular stanchions that are adhesively secured to said pallet base and that are selectively positionable along x and y axes relative to a top surface of said pallet base, said modular stanchions each including a stanchion base and a support element that has a height along a z axis that is transverse to said x and y axes, said support element supporting said structure,

wherein each of said modular stanchions is adhesively bonded to said pallet base using a bonding pack, said bonding pack including:

a shim that enables said modular stanchion to be removed from said pallet base, said shim coupled to the bottom of said stanchion base via an adhesive layer; and

a quick-bonding adhesive layer providing an interfacial joint between said modular stanchion and said pallet base,

wherein said stanchion base and said shim are electrically conductive such that said stanchion base is removable from said shim by the application of an electric current to said modular stanchion.

2. (Original) The reconfigurable pallet of claim 1 wherein said x and y axes are parallel to a top surface of said pallet base and said z axis is perpendicular to said x and y axes.

3. (Original) The reconfigurable pallet of claim 1 wherein said support element is movable along said z axis to adjust said height.

4. (Original) The reconfigurable pallet of claim 3 wherein each of said modular stanchions further comprises a support cylinder that is selectively actuated to move said support element to a position along said z axis.

5. (Original) The reconfigurable pallet of claim 4 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.

6-9. (Cancelled)

10. (Previously Presented) A pallet that is configurable to support a first structure and reconfigurable to support a second structure, comprising:

a pallet base; and

a plurality of modular stanchions that are adhesively secured to said pallet base and that are selectively positionable along x and y axes relative to a top surface of

said pallet base, said modular stanchions each including a stanchion base and a support element that has a height defined along a z axis transverse to said x and y axes, said support element having a first position to support said first structure and having a second position to support said second structure, wherein each of said modular stanchions is adhesively bonded to said pallet base using a bonding pack, said bonding pack including:

a shim bonded to the bottom of said modular stanchion via a quick-debonding adhesive layer; and

a quick-bonding adhesive layer providing an interfacial joint between said shim and said pallet base, said interfacial joint bonds said shim to said pallet base such that said shim is machined from said pallet base to reconfigure said pallet,

wherein said stanchion base and said shim are electrically conductive such that said stanchion base is removable from said shim by the application of an electric current to said modular stanchion.

11. (Original) The pallet of claim 10 wherein said support element is movable along said z axis to adjust said height.

12. (Original) The pallet of claim 10 wherein each of said modular stanchions further comprises a support cylinder that is selectively actuated to move said support element to a position along said z axis.

13. (Original) The pallet of claim 12 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.

14-17. (Cancelled)

18. (Withdrawn) A method of assembling a reconfigurable pallet that supports multiple structures, comprising:

applying a bonding pack to a modular stanchion having a stanchion base, applying said bonding pack including:

bonding a shim to the bottom of said stanchion base via a quick-debonding adhesive layer;

securing said modular stanchion to a pallet base by applying a quick-bonding adhesive layer to said shim and said pallet base, wherein said quick-bonding adhesive layer provides an interfacial joint between said modular stanchion and said pallet base;

coupling a component to the modular station;

performing an operation on the component selected from the group consisting of assembling the component, welding, treating the base structure, applying sealant and combinations thereof;

de-bonding said modular stanchion from said shim after using said reconfigurable pallet to support a first structure;

machining said shim from said pallet base to enable the reconfigurable pallet to be reconfigured; and

reconfiguring said reconfigurable pallet to support a second structure.

19. (Withdrawn) The method of claim 18 further comprising aligning said modular stanchion on x and y coordinates along said pallet base using a template.

20. (Withdrawn) The method of claim 18 further comprising removing said template after said modular stanchion is secured to said base.

21-23. (Cancelled)

24. (Withdrawn) The method of claim 18 wherein said step of de-bonding comprises applying an electric current across said modular stanchion and said pallet base.

25. (Withdrawn) An assembly line for assembling a product, comprising:

a plurality of operation stages;

a pallet that supports a base structure of said product and carries said base structure between said operating stages, comprising:

a pallet base;

a stanchion base that is adhesively secured to said pallet base and that is positionable along x and y axes relative to a top surface of said pallet base, wherein

said stanchion base is adhesively bonded to said pallet base using a bonding pack, said bonding pack including:

a shim bonded to the bottom of said stanchion base via a quick-debonding adhesive layer; and

a quick-bonding adhesive layer;

a support element that is supported on said stanchion base and that has a height transverse to said x and y axes along a z axis, said support element having a first position to support said base structure; and

wherein said stanchion base and said shim are electrically conductive such that said stanchion base is removable from said shim by the application of an electric current to said modular stanchion.

26. (Withdrawn) The assembly line of claim 25 wherein said support element is movable along said z axis to adjust said height.

27. (Withdrawn) The assembly line of claim 25 wherein said pallet further comprises a support cylinder that is supported by said stanchion base and that is selectively actuated to move said support element to a position along said z axis.

28. (Withdrawn) The assembly line of claim 27 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.